2008 Advanced Energy Technologies Making a Difference Today

Vehicle Technologies Program





Hybrid-Electric Vehicles

Hybrid-electric vehicles (HEVs) combine the benefits of combustion engines and electric motors. HEVs can improve fuel economy, increase power, or be used as additional auxiliary power for electronic devices and power tools. Several different types of hybrids are currently available, including mild-, full-, and dual-mode hybrids.



Diesel Vehicles

Diesel vehicles are more fuel efficient than similar-sized gasoline vehicles (about 25-35% more fuel efficient). Improved fuel injection and electronic engine control technologies increase fuel economy, improve acceleration, provide more towing capacity, and reduce emissions and noise to levels similar to gasoline vehicles.

Flexible-Fuel Vehicles

Flexible-fuel vehicles (FFVs) are designed to run on gasoline or a blend of up to 85% ethanol (E85) and gasoline. Except for a few engine and fuel system modifications, they are identical to gasoline-only models. FFVs typically get about 20-30% fewer miles per gallon when fueled with E85, but achieve a dramatic reduction in petroleum use.

Chevrolet Impala FFV					
6 cyl, 3.5 L Auto 4-spd				•	
Fuel	E85		Gasoline	•	
MPG	14 city	21 highway	18 city	29 highway	
Energy	5.0	5.0 barrels/yr		15.6 barrels/yr	
Impact		11111			
Score	(pet	roleum use)	HIIIIIIIII		



Energy-Efficient Technologies are Available Now!

Many of the vehicles currently on display in dealer showrooms boast other fuel-saving technologies that can save you money today:

- Variable Valve Timing and Lift
- Cylinder Deactivation
- Continuously Variable or 6- and 7-speed transmissions
- Direct Fuel Injection (with turbocharging or supercharging)

On the following pages, you will find lists of currently available advanced technology hybrid-electric passenger cars and sport utility vehicles, diesel vehicles, and flexible-fuel vehicles.

	2008	Hybrid Passen	ger Cars	
	EPA MPG ¹			MPG Improvement ²
Toyota Prius - 4 cyl, 1.5 L	, Automatic (variable	gear ratios)		
*	48 city	45 highway	46 combined	50-60%
londa Civic Hybrid - 4 cy	l, 1.3 L, Automatic (va	riable gear ratios)		
	40 city	45 highway	42 combined	45%
Nissan Altima Hybrid - 4	cyl, 2.5 L, Automatic	(variable gear ratios)		
	35 city	33 highway	34 combined	30-55%
Toyota Camry Hybrid - 4	cyl, 2.4 L, Automatic (variable gear ratios)		
0 0	33 city	34 highway	34 combined	35-55%
Chevrolet Malibu Hybrid	- 4 cyl, 2.4 L, Automa	tic 4-spd		
	24 city	32 highway	27 combined	20-25%
Saturn Aura Hybrid - 4 cy	l, 2.4 L, Automatic 4-	spd		
	24 city	32 highway	27 combined	20-25%
Lexus GS 450h - 6 cyl, 3.5	L, Automatic (S6)			
	22 city	25 highway	23 combined	5%
Lexus LS 600h L - 8 cyl, 5	L, Automatic (S8)			
	20 city	22 highway	21 combined	Not Available

¹MPG data are from fueleconomy.gov

Plus

²Percent improvement over comparable conventional gasoline vehicles

	2008 Hybr	id Sport Utility	Vehicles	
	EPA MPG	iu Sport othicy	venicles	MPG Improvement
Ford Escape Hybrid FWD - 4 cy	l, 2.3 L, Automatic (variable gear ratios)		
0-0-	34 city	30 highway	32 combined	45-60%
Mazda Tribute Hybrid 2WD - 4	cyl, 2.3 L, Automat	ic (variable gear rati	os)	
	34 city	30 highway	32 combined	45-60%
Mercury Mariner Hybrid FWD	- 4 cyl, 2.3 L, Autom	atic (variable gear ra	ntios)	
	34 city	30 highway	32 combined	45-60%
Ford Escape Hybrid 4WD - 4 cy	l, 2.3 L, Automatic (variable gear ratios))	
	29 city	27 highway	28 combined	33-45%
Mazda Tribute Hybrid 4WD - 4	cyl, 2.3 L, Automat	ic (variable gear ratio	os)	
	29 city	27 highway	28 combined	33-45%
Mercury Mariner Hybrid 4WD	- 4 cyl, 2.3 L, Autom	atic (variable gear ra	ntios)	'
	29 city	27 highway	28 combined	33-45%
Toyota Highlander Hybrid 4W	D - 6 cyl, 3.3 L, Auto	matic (variable gear	ratios)	
	27 city	25 highway	26 combined	35-40%

CITY MPG

Expected range for most oness 45 to 24 seco

aconomy Estimates

\$2,039

	2008 Hybrid Sp	ort Utility Ve	hicles (continu	ıed)		
	EPA MPG			MPG Improvement		
Lexus RX 400h 2WD - 6 cyl, 3.3 L, Automatic (variable gear ratios)						
***	27 city	24 highway	25 combined	25%		
Lexus RX 400h 4WD - 6 cyl, 3.3	B L, Automatic (varia	able gear ratios)	_			
**	26 city	24 highway	25 combined	30%		
Saturn Vue Hybrid - 4 cyl, 2.4	L, Automatic 4-spd					
	25 city	32 highway	28 combined	25-50%		
Chevrolet Tahoe Hybrid 2WD	- 8 cyl, 6 L, Automat	ic (variable gear ra	ntios)			
	21 city	22 highway	21 combined	30-50%		
GMC Yukon 1500 Hybrid 2WD	- 8 cyl, 6 L, Automat	tic (variable gear ra	atios)			
	21 city	22 highway	21 combined	30-50%		
Chevrolet Tahoe Hybrid 4WD	- 8 cyl, 6 L, Automat	ic (variable gear ra	ntios)			
	20 city	20 highway	20 combined	25%		
GMC Yukon 1500 Hybrid 4WD	- 8 cyl, 6 L, Automat	tic (variable gear ra	atios)			
	20 city	20 highway	20 combined	25-45%		

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Plus

	iesel Vehicles (AII EPA MPG ¹			MPG Improvement
Mercedes-Benz E320 Blue	etec - 6 cyl, 3 L, Automa	rtic 7-spd		
	23 city	32 highway	26 combined	25-35%
Mercedes-Benz ML320 CD	ol 4matic - 6 cyl, 3 L, Au	tomatic 7-spd		
8 8	18 city	24 highway	21 combined	25-35%
Mercedes-Benz R320 CDI	4matic - 6 cyl, 3 L, Auto	omatic 7-spd		
	18 city	24 highway	21 combined	25-35%
Mercedes-Benz GL320 CD	l 4matic - 6 cyl, 3 L, Aut	omatic 7-spd		
	18 city	24 highway	20 combined	10-20%
Jeep Grand Cherokee 2W	D - 6 cyl, 3 L, Automatic	: 5-spd		
	18 city	23 highway	20 combined	10-20%
Jeep Grand Cherokee 4W	D - 6 cyl, 3 L, Automatic	: 5-spd		
	17 city	22 highway	19 combined	20%
Volkswagen Touareg - 10	cyl, 5 L, Automatic (S6)			
	15 city	20 highway	17 combined	20%
Volkswagen Jetta – Comi	ng Soon!			

¹MPG data are from fueleconomy.gov

conomy Estimate

²Percent improvement over comparable conventional gasoline vehicles

	2007 Flexible-Fuel Vehicles	
Chrysler Corporation		
Chrysler Sebring Chrysler Sebring Convertible Chrysler Town and Country Chrysler Aspen 2WD Chrysler Aspen 4WD	Dodge Avenger Dodge Caravan Dodge Dakota Pickup 2WD Dodge Dakota Pickup 4WD Dodge Durango 2WD Dodge Durango 4WD Dodge Ram 1500 Pickup 2WD (2) Dodge Ram 1500 Pickup 4WD (2)	Jeep Commander 2WD Jeep Commander 4WD Jeep Grand Cherokee 2WD Jeep Grand Cherokee 4WD
Ford Motor Company		
Ford Crown Victoria Ford F150 STX SE FFV Ford F150 Pickup FFV 2WD Ford F150 Pickup FFV 4WD	Lincoln Town Car	Mercury Grand Marquis
General Motors Corporation		
Chevrolet Impala (2) Chevrolet Uplander Chevrolet Silverado C15 2WD Chevrolet Silverado K15 4WD Chevrolet Avalanche 1500 2WD Chevrolet Avalanche 1500 2WD Chevrolet Suburban 1500 2WD Chevrolet Suburban 1500 2WD Chevrolet Tahoe 1500 2WD Chevrolet Tahoe 1500 2WD Chevrolet Van 1500/2500 2WD Chevrolet Van 15/25 2WD Conversion Chevrolet Van 1500/2500 AWD Chevrolet Van 1500 AWD Conversion Chevrolet Express 1500/2500 2WD Chevrolet Express 1500/2500 2WD	GMC Sierra C15 2WD GMC Sierra K15 4WD GMC Yukon 1500 2WD GMC Yukon 1500 4WD GMC Yukon XL 1500 2WD GMC Yukon XL 1500 4WD GMC Savana 1500/2500 2WD (Cargo) GMC Savana 15/25 2WD Conversion (Cargo) GMC Savana 1500/2500 AWD (Cargo) GMC Savana 1500 AWD Conversion (Cargo) GMC Savana 1500 AWD Conversion (Cargo) GMC Savana 1500 AWD (Passenger) GMC Savana 1500 AWD (Passenger)	
Mercedes-Benz		
Mercedes-Benz C300		
Mitsubishi Motors		
Mitsubishi Raider Pickup 2WD Mitsubishi Raider Pickup 4WD		
Nissan Motor Company		
Nissan Armada 2WD Nissan Armada 4WD	Nissan Titan 2WD Nissan Titan 4WD	

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Plus

${\bf A\,Strong\,Energy\,Portfolio\,for\,a\,Strong\,America}$

Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

For more information contact: EERE Information Center 1-877-EERE-INF (1-877-337-3463) www.eere.energy.gov